GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA

UNSTARRED QUESTION NO:2467
ANSWERED ON:30.11.2016
Meteorological and Observational Services
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Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether out-dated technology and poor maintenance is hampering accuracy and consistency of meteorological and observational services;
(b) if so, the details thereof; and
(c) the extent to which innovations and initiatives are being conducted and implemented by meteorological department?

Answer

THE MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTRY OF EARTH SCIENCES
(SHRI Y. S. CHOWDARY)

(a) No Madam.
(b) Does not arise.
(c) Starting from the XI five year plan, Government has initiated a comprehensive upgradation of (i) observation systems (ii) advanced data assimilation tools (iii) advanced communication and IT infrastructure (iv) high performance computing systems and (v) intensive/sophisticated training of India Meteorological Department (IMD) personnel to facilitate the implementation of advanced prediction models for improving the accuracy of weather forecasts.

During the XIIth plan, the High Performance Computing (HPC) systems have been up-scaled to 1.2 petaflops so far to support the ongoing efforts on modelling. Operational implementation of improved suite of prediction models has enhanced the weather forecasting capability through assimilation of all available global satellite radiance data for the production of forecast products at 22km grid globally and 9km/3km grid over India/regional/mega city domains. Latest technology is being utilized in IMD observatories.IMD has updated instruments with latest technology, following World Meteorological Organisation (WMO) Guidelines.

Following initiatives are implemented by IMD for improving its observational services.

â€¢ Surface instrument Division of IMD, Pune has taken up many initiatives to upgrade all Meteorological field sites .
â€¢ IMD and Society for Applied Microwave Electronics Engineering & Research(SAMEER) have developed HHDL (Hand held Datalogger) for transmission of meteorological data from Field observatory to their respective Meteorological Center/Regional Meteorological Centre.
â€¢ IMD and National Aerospace Laboratories(NAL) Bangalore have developed DrishtiTransmissometer Systems (LED Based) for Airports.
â€¢ Modernization of Conventional Surface Observatories by replacement with Digital Sensors and Automatic transmission of SYNOP messagesof surface data.
â€¢ Radiation Lab, Pune has primary standard (Cavity radiometer) for solar radiation instruments and is Regional Radiation Centre for Asia (RA II) is recognized by World Meteorological Organization (WMO).
â€¢ IMD has upgraded mercury barometers with Digital standard barometers.
â€¢ IMD has developed ingeniously High wind speed recorder system (HWSR) to measure high wind speed and direction and installed at coastal stations.
â€¢ IMD is also upgrading AWS with dual communication − satellite as well as mobile based AWS.

Indigenous technologies from Bharat Electronics Limited (BEL), Electronics Corporation of India Limited (ECIL)&Indian Space Research Organization (ISRO) have been incorporated in the Doppler Weather Radar Network of India Meteorological Department.